	Application No.	Applicant(s)
Notice of Allowability	09/532,804	EL-RAFIE, KHALID MONIR A.
	Examiner	Art Unit	
	Bradley Edelman	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Applicant's amendment filed on April 11, 2005.*

2. ☒ The allowed claim(s) is/are *2-5,7,9,26-45,48-50 and 53-70.*

3. ☒ The drawings filed on *21 March 2000* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some*   c)☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a)☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1)☐ hereto or 2)☐ to Paper No./Mail Date _____.

    (b)☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *6/27/05* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

Bradley Edelman

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Anthony Kandare on June 26, 2005. Mr. Kandare also authorized the PTO to

charge any additional fee that might be necessary for an additional dependent claim to

Deposit Account No. 19-0733. It does not appear, however, that any additional fee is

necessary. Note: there was a numbering error in Applicant's response filed on April

11th, 2005 (two claims were numbered "54"). However, it appears that Applicant was

duly charged for both claims, even though the claims were misnumbered. The below

Examiner's amendment cures this misnumbering problem.

The application has been amended as follows:

IN THE CLAIMS:

Make the following changes to the claims:

Claim 1.   Cancelled

Claim 2 (Currently Amended):   An asymmetric satellite based terminal device configured
to receive Internet data from a satellite using a standard TCP/IP stack, the terminal device
comprising:
    a personal computer comprising:
        a modem in communication with an Internet Service Provider (ISP);

an expansion card based satellite receiver in communication with a

Satellite Network Operation Center (NOC), the NOC having a range of satellite

IP addresses assigned thereto; and

an operating system, the operating system including the standard TCP/IP

stack;

a first driver configured to access the expansion card based satellite receiver; and

a second driver configured to access the modem;

wherein the first driver is further configured to route data received from the satellite

receiver card to the standard TCP/IP stack, the second driver is further configured to route

request data from the standard TCP/IP stack to the modem, and the modem is configured to send

the request data to the ISP, the request data as sent from the modem having <u>as its source address</u>

a satellite source IP address from the range of satellite IP addresses assigned to the NOC, the

satellite source IP address not being encapsulated within another source IP address, whereby

asymmetric satellite communications is enabled.

Claim 3 (Currently Amended):   An asymmetric satellite system comprising an asymmetric

satellite based terminal device configured to receive Internet data from a satellite using a

standard TCP/IP stack, a satellite network operation center (NOC) located at a distance from the

asymmetric satellite based terminal device and having a range of satellite IP addresses assigned

thereto, and an Internet having a plurality of remote hosts, wherein the terminal device is

configured to send web page request data to the remote hosts <u>via a modem</u> with <u>the request data</u>

<u>source address being</u> a source address of the network operations center, the source address

comprising a satellite IP address from the range of IP addresses assigned to the NOC, the

satellite source IP address not being encapsulated within another source IP address.

Claim 4 (Original):   The asymmetric satellite system of claim 3 wherein the network operation

center is configured to encapsulate data output to the asymmetric satellite based terminal device

from the network operation center in MPEG II packets.

Claim 5 (Previously Presented): The asymmetric satellite system of claim 4 wherein the data includes WEB pages.

Claim 6. Cancelled

Claim 7 (Currently Amended): An asymmetric satellite system comprising a satellite network operations center having a range of satellite IP addresses assigned thereto, an Internet having a plurality of hosts, and a terminal device located at a distance from the network operations center and configured to utilize an IP address belonging to the network operations center such that access requests across the Internet are returned to the network operations center, wherein the terminal device includes a personal computer having a modem, an expansion card based satellite receiver, and an operating system, the operating system including the standard TCP/IP stack, and an application program for assigning the IP address as a source address of the terminal device, wherein the terminal device is configured to issue requests for web pages via a modem with the request source address being a source address of the network operations center, the source address comprising a satellite IP address from the range of IP addresses assigned to the network operations center, the satellite source IP address not being encapsulated within another source IP address.

Claim 8. Cancelled.

Claim 9 (Currently Amended): An asymmetric satellite based terminal device configured to utilize an IP address belonging to a satellite network operations center (NOC), the NOC having a range of satellite IP addresses assigned thereto, the asymmetric satellite based terminal device including a personal computer having a modem, an expansion card based satellite receiver, and an operating system, the operating system including the standard TCP/IP stack, and an application program for assigning the IP address as a source address of the asymmetric satellite based terminal device, wherein the asymmetric satellite based terminal device is configured to issue requests for web pages via a modem with the request source address being a source address of the network operations center, the source address comprising a satellite IP

address from the range of IP addresses assigned to the NOC, the satellite source IP address not being encapsulated within another source IP address.

Claims 10-25. Cancelled

Claim 26 (Previously Presented):   The asymmetric satellite based terminal device of claim 2, wherein the terminal device is dynamically assigned an IP address from the range of IP addresses assigned to the NOC.

Claim 27 (Previously Presented):   The asymmetric satellite based terminal device of claim 2, wherein the terminal device is statically assigned an IP address from the range of IP addresses assigned to the NOC.

Claim 28 (Previously Presented):   The asymmetric satellite based terminal device of claim 27, wherein the IP address is associated with a subscriber of satellite service provided via the NOC.

Claim 29 (Previously Presented):   The asymmetric satellite based terminal device of claim 28, wherein the terminal device is assigned an IP address from the range of IP addresses assigned to the NOC based on a token.

Claim 30 (Previously Presented):   The asymmetric satellite based terminal device of claim 29, wherein the token is in communication with the terminal device and is selected from the group consisting of an access card, a Smartcard, and a data key.

Claim 31 (Previously Presented):   The asymmetric satellite based terminal device of claim 29, wherein the token is entered into the terminal device by a user and is selected from the group consisting of an id value, a password, an id value and a password, an encrypted ID, and an encrypted ID and a password.

Claim 32 (Previously Presented):   The asymmetric satellite system of claim 3, further comprising an Internet Service Provider (ISP) connected between the terminal device and the Internet, wherein the ISP is configured to assign to the terminal device an IP address associated with the network operations center.

Claim 33 (Previously Presented):   The asymmetric satellite system of claim 32, wherein the ISP has a plurality of available IP addresses assigned to the network operations center and is configured to dynamically assign an available IP address of the plurality of available IP addresses to the terminal device.

Claim 34 (Previously Presented):   The asymmetric satellite system of claim 32, wherein the ISP is configured to statically assign the IP address to the terminal device based on the identity of a user of the terminal device.

Claim 35 (Previously Presented):   The asymmetric satellite system of claim 32, wherein the ISP is configured to assign the IP address based on a token.

Claim 36 (Previously Presented):   The asymmetric satellite based terminal device of claim 35, wherein the token is in communication with the terminal device and is selected from the group consisting of an access card, a Smartcard, and a data key.

Claim 37 (Previously Presented):   The asymmetric satellite based terminal device of claim 35, wherein the token is entered into the terminal device by a user and is selected from the group consisting of an id value, a password, an id value and a password, an encrypted ID, and an encrypted ID and password.

Claim 38 (Previously Presented):   The asymmetric satellite system of claim 3, wherein a first host of the remote hosts is connected to the terminal device via a first hop on a terrestrial link, a second host of the remote hosts is connected to the terminal device via a second hop on the terrestrial link, and an ISP is configured to return data from the first host to the terminal device

via the terrestrial link and to return data from the second host to the terminal device via a satellite link.

Claim 39 (Currently Amended):   An asymmetric satellite based terminal device comprising:

a modem in communication with an Internet Host via a terrestrial link;

a satellite card in communication with an Internet Host via a satellite link;

a storage device having computer-readable instructions stored thereon for performing steps comprising:

creating ~~an~~ a data packet having as its IP source address an ~~a source~~ address assigned to a centralized uplink center of a satellite service, the IP source address not being encapsulated within another source IP address; and

sending the data packet from the modem to the Internet Host via the terrestrial link in its unencapsulated form.

Claim 40 (Previously Presented):   The asymmetric satellite based terminal device of claim 39, wherein the storage device further includes instructions for performing the step of receiving data at the satellite card from the Internet Host via the satellite link in response to the data packet being sent from the modem.

Claim 41 (Previously Presented):   The asymmetric satellite based terminal device of claim 40, wherein the Internet Host is connected to the modem via a first hop on the terrestrial link, and the storage device further includes instructions for performing the step of receiving data at the modem from the Internet Host via the terrestrial link in response to the data packet being sent from the modem.

Claim 42 (Currently Amended):   A method for providing asymmetric satellite based service to a terminal device, the method comprising:

creating a data packet having as its IP source address a source address assigned to a centralized uplink center of a satellite network, the source IP address not being ~~that is not~~ encapsulated within another IP source address; and

sending the data packet <u>in its unencapsulated form from a modem of the terminal device</u> <s>from the terminal device</s> to an Internet Host via a terrestrial link.

Claim 43 (Previously Presented): The method of claim 42, further comprising, in response to the step of sending, receiving response data at the terminal device from the Internet Host via a satellite link.

Claim 44 (Previously Presented): The method of claim 42, wherein the Internet Host is connected to the terminal device via a first hop on the terrestrial link, the method further comprising receiving response data at the terminal device from the Internet Host via the terrestrial link in response to the step of sending.

Claim 45 (Previously Presented): The method of claim 42, further comprising assigning an IP address assigned to an uplink center of a satellite network to the terminal device, wherein, for the step of creating, the source address matches the IP address assigned to the uplink center.

Claim 46:   Cancelled

Claim 47:   Cancelled

Claim 48 (Currently Amended): A computer-readable medium having computer-readable instructions stored thereon for performing steps comprising:

creating a data packet having <u>as its IP source address</u> a source address assigned to a centralized uplink center of a satellite service<u>, the IP source address not being</u> <s>that is not</s> encapsulated within another <u>IP</u> source address; and

sending the data packet <u>in its unencapsulated form</u> from <s>the</s> a modem of an asymmetric satellite based terminal device to an Internet Host via a terrestrial link.

Claim 49 (Previously Presented): The computer-readable medium of claim 48 including further computer-readable instructions for performing the step of receiving data at the terminal device

from the Internet Host via a satellite link in response to the data packet being sent from the modem.

Claim 50 (Previously Presented):   The computer-readable medium of claim 48 including further computer-readable instructions for performing the step of assigning an IP address assigned to an uplink center of a satellite network to the terminal device, wherein, for the step of creating, the source address matches the IP address assigned to the uplink center.

Claim 51:   Cancelled

Claim 52:   Cancelled

Claim 53 (Currently Amended):   An asymmetric satellite based terminal device configured to receive Internet data from a satellite using a standard TCP/IP stack, the terminal device comprising:

a personal computer comprising:

a modem in communication with an Internet Service Provider (ISP);

an expansion card based satellite receiver in communication with a Network Operation Center (NOC), the NOC having a range of IP addresses assigned thereto, the receiver having an Internet broadcast IP address from the range of IP addresses assigned to the NOC; and

an operating system, the operating system including the standard TCP/IP stack;

a first driver configured to access the expansion card based satellite receiver; and

a second driver configured to access the modem;

wherein the first driver is further configured to route data received from the satellite receiver card to the standard TCP/IP stack, the second driver is further configured to route request data from the standard TCP/IP stack to the modem, and the modem is configured to send the request data to the ISP, the request data as sent from the modem having, as an

~~unencapsulated~~ IP source address <u>unencapsulated within another IP source address</u>, the Internet broadcast IP address of the receiver, whereby asymmetric satellite communications is enabled.

Claim 54 (Previously Presented):   The asymmetric satellite terminal device of claim 53, wherein the terminal device is configured to send web page request data to remote hosts with the return address as the Internet broadcast IP address.

Claim ~~54~~ <u>55</u> (Currently Amended):   The asymmetric satellite system of claim 53 wherein the network operation center is configured to encapsulate data output to the asymmetric satellite based terminal device from the network operations center in MPEG II packets.

Claim ~~55~~ <u>56</u> (Currently Amended):   The asymmetric satellite system of claim 54 wherein the data includes WEB pages.

Claim ~~56~~ <u>57</u> (Currently Amended):   The asymmetric satellite system of claim 53 wherein the terminal device includes an application program for assigning the source Internet broadcast IP address from the range of IP addresses as a return address of the terminal device, wherein the terminal device is configured to issue requests for web pages with a return address of the network operations center.

Claim ~~57~~ <u>58</u> (Currently Amended):   The asymmetric satellite based terminal device of claim 53, wherein the terminal device is dynamically assigned the Internet broadcast IP address from the range of IP addresses assigned to the NOC.

Claim ~~58~~ <u>59</u> (Currently Amended):   The asymmetric satellite based terminal device of claim 53, wherein the terminal device is statically assigned the Internet broadcast IP address from the range of IP addresses assigned to the NOC.

Claim 59 60 (Currently Amended): The asymmetric satellite based terminal device of claim 59, wherein the Internet broadcast IP address is associated with a subscriber of satellite service provided via the NOC.

Claim 60 61 (Currently Amended): The asymmetric satellite based terminal device of claim 59 60, wherein the terminal device is assigned the Internet broadcast IP address from the range of IP addresses assigned to the NOC based on a token.

Claim 61 62 (Currently Amended): The asymmetric satellite based terminal device of claim 60 61, wherein the token is in communication with the terminal device and is selected from the group consisting of an access card, a Smartcard, and a data key.

Claim 62 63 (Currently Amended): The asymmetric satellite based terminal device of claim 61, wherein the token is entered into the terminal device by a user and is selected from the group consisting of an id value, a password, an id value and a password, an encrypted ID, and an encrypted ID and a password.

Claim 63 64 (Currently Amended): The asymmetric satellite system of claim 54, further comprising an Internet Service Provider (ISP) connected between the terminal device and the Internet, wherein the ISP is configured to assign to the terminal device the Internet broadcast IP address associated with the network operations center.

Claim 64 65 (Currently Amended): The asymmetric satellite system of claim 63 64, wherein the ISP has a plurality of available Internet broadcast IP addresses assigned to the network operations center and is configured to dynamically assign an available Internet broadcast IP address of the plurality of available Internet broadcast IP addresses to the terminal device.

Claim 65 66 (Currently Amended): The asymmetric satellite system of claim 63 64, wherein the ISP is configured to statically assign the Internet broadcast IP address to the terminal device based on the identity of a user of the terminal device.

Claim 66 67 (Currently Amended): The asymmetric satellite system of claim 63 64, wherein the ISP is configured to assign the Internet broadcast IP address based on a token.

Claim 67 68 (Currently Amended): The asymmetric satellite based terminal device of claim 66 67, wherein the token is in communication with the terminal device and is selected from the group consisting of an access card, a Smartcard, and a data key.

Claim 68 69 (Currently Amended): The asymmetric satellite based terminal device of claim 67 68, wherein the token is entered into the terminal device by a user and is selected from the group consisting of an id value, a password, an id value and a password, an encrypted ID, and an encrypted ID and password.

Claim 69 70 (Currently Amended): The asymmetric satellite system of claim 54 53, wherein a first host of the remote hosts is connected to the terminal device via a first hop on a terrestrial link, a second host of the remote hosts is connected to the terminal device via a second hop on the terrestrial link, and the ISP is configured to return data from the first host to the terminal device via the terrestrial link and to return data from the second host to the terminal device via a satellite link.

Allowable Subject Matter

Claims 2-5, 7, 9, 26-45, 48-50, and 53-70 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art of record fails to disclose the claimed asymmetric satellite system wherein a data packet sent from a terminal device via a modem has as its source

address an IP address from a range of addresses assigned to a centralized uplink center (i.e. "network operations center") of a satellite network, and wherein the source address is not encapsulated within another source IP address.

This feature is included in all of the claims, and therefore all of the claims are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley Edelman whose telephone number is 571-272-3953. The examiner can normally be reached from 9 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached at 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

BE
June 27, 2005

Bradley Edelman